

In the Claims

AB Please amend the claims as follows:

Q1 1. (Once amended) A microchip device for the release of molecules comprising:
a substrate comprised of two or more substrate portions bonded together;
at least two reservoirs in the substrate, each containing molecules for release; and
a reservoir cap positioned on, or within a portion of, each of said at least two
reservoirs and over the molecules for release, the molecules for release being releasable from the
device by diffusion through or upon disintegration of the reservoir caps, wherein the release of
the molecules from each reservoir is controlled by said diffusion through or disintegration of the
reservoir cap positioned thereover.

Q2 8. (Once amended) The device of claim 1, wherein one of said at least two reservoirs
comprises different types of molecules, different amounts of molecules, or combinations thereof,
compared to another of said at least two reservoirs.

Q3 11. (Once amended) The device of claim 1, further comprising a cathode, a microprocessor,
a timer, a demultiplexer, and a power source, wherein at least one reservoir cap is an anode, such
that upon application of an electric potential between the cathode and anode, said at least one
reservoir cap disintegrates to release the molecules from the reservoir which is under said at least
one reservoir cap.

16. (Once amended) A method for the delivery of molecules comprising:

94 providing at a site where molecules are to be delivered a microchip device which comprises a substrate comprised of two or more substrate portions bonded together, at least two reservoirs in the substrate, each containing molecules for release, and a reservoir cap positioned on, or within a portion of, each of said at least two reservoirs and over the molecules for release; and

controllably releasing said molecules from each of the reservoirs by said diffusion through or disintegration of each of the reservoir caps.

17. (Once amended) The method of claim 16, wherein the molecules for release comprise a drug and the device is provided at the site by implanting or injecting the microchip into a patient.

18. (Once amended) The method of claim 17, wherein the drug is selected from the group consisting of nucleic acids, proteins, amino acids, polysaccharides, organic molecules, and synthetic molecules.

19. (Once amended) The method of claim 17, wherein the drug is in combination with a pharmaceutically acceptable carrier.

20. (Once amended) The method of claim 16, wherein the molecules for release comprise a diagnostic reagent or a chemical reagent.

25. (Once amended) The method of claim 16, wherein the device further comprises a cathode, a microprocessor, a timer, a demultiplexer, and a power source, wherein at least one reservoir cap is an anode, and wherein the method further comprises applying an electric potential between the cathode and anode, to release the molecules from the reservoir under said at least one reservoir cap.

Please cancel claims 27-41.

Please add the following new claims:

42. (New) The device of claim 1, wherein the molecules for release comprise drug molecules.

43. (New) The device of claim 42, wherein the drug molecules are in combination with a pharmaceutically acceptable carrier.

44. (New) The device of claim 42, wherein the drug molecules comprise a nucleic acid, a protein, an amino acid, or a polysaccharide.

45. (New) The device of claim 42, wherein the drug molecules comprise a hormone.

46. (New) The device of claim 42, wherein the drug molecules comprise a synthetic, organic molecule.

47. (New) The device of claim 42, wherein the drug molecules are selected from the group consisting of anesthetics, vaccines, chemotherapeutic agents, metabolites, immunomodulators, antioxidants, antibiotics, and ionic channel regulators.

48. (New) The device of claim 1, wherein the molecules for release comprise a diagnostic reagent or a chemical reagent.

49. (New) The device of claim 48, wherein the molecules comprise a chemical reagent for use in a polymerase chain reaction or another nucleic acid amplification procedure.

50. (New) The device of claim 1, wherein the molecules for release are in a liquid form.

51. (New) The device of claim 1, wherein the molecules for release are in a solid form.

52. (New) The device of claim 1, which releases the molecules in a pulsatile manner.

53. (New) The device of claim 1, which releases the molecules in a continuous manner.

54. (New) The device of claim 1, wherein the reservoir cap comprises one or more polymers.

55. (New) The device of claim 1, wherein the reservoir cap comprises a metal thin film.